Highly expandable EEB power with dual CPU

- Dual Intel® Socket LGA 2011/C602 chipset
- Quad channel 8-DIMM memory
- Enhanced parallel GPU computing power with seven PCI Express 3.0 x16 slots
- Advanced and complete I/O with USB 3.0, SATA 6Gb/s and Intel® Ethernet
- Server-level capabilities with RAID, LAN, and capture cards
- 3X faster performance with ASUS SSD Caching
- **Support Intel® Xeon Phi™ 3100 series (active fan SKU only) and NVIDIA Tesla K20C cards.**

Add to comparison list

Workstation Essentials for Your Business

The ASUS Workstation Series is the ideal foundation for a powerful PC. It delivers awesome power, dependable performance and unmatched multiple I/O scalability for the most demanding tasks and future upgrades. The ASUS Workstation Series intelligently reduces operating noise and dissipates heat through advanced and environmentally friendly methods to accommodate user needs. Series motherboards also

bring you ultimate reliability and quality through our 24x24 initiative, which means 24-hour non-stop operation and a 24-month life cycle supply guarantee so you're not compelled to change computers often.Instead, let the ASUS Workstation Series improve the quality of your work and life.

ASUS Workstation Exclusive Features

Enhanced parallel GPU computing power with seven PCI Express 3.0 x16 slots

7 PCI-Ex16 Expansions

Personal supercomputer-grade performance is achieved when working in tandem with discrete NVIDIA® CUDA technology — providing unprecedented return on investment. Users can count on up to four Tesla cards with dual Intel® Xeon® E5-2600 processors for intensive parallel computing and massive data handling capabilities, delivering nearly 4 teraflops of performance. This offers an excellent desktop replacement for cluster computing.

Standard EEB form factor

EEB Form Factor

The Z9PE-D8 WS packs a superior feature set onto a regular EEB form factor, The new board therefore fits into any case with EEB-compatible mounting holes. Although standard in size, the Z9PE-D8 WS enables flexibility and performance well above the norm with dual Intel® Xeon® E5-2600 support (Sandy Bridge-E), and an 8-DIMM memory design. For storage support and data connectivity, it ships with four USB 3.0 ports and six SATA 6Gb/s ports.

Diverse memory types

Reliable & Stable

The Z9PE-D8 WS supports dual Intel® Xeon E6-2600 series server/workstation CPUs. System builders can also choose between robust server-grade DDR3 ECC unbuffered/buffered memory modules and more mainstream and readily available DDR3 non-ECC unbuffered memory. By supporting different processor and memory types, the Z9PE-D8 WS affords a wide range of workstation builds for every budget and need.

Built-in Dual Intel Server-Class Gigabit LAN

For more reliable networking, the Z9PE-D8 WS features built-in dual Intel® Ethernet. This leads to lower CPU utilization, increasing throughput to achieve outstanding

performance as well as better support for diverse operating systems.

Considerate design: Quick Gate

Quick Gate is a vertical USB connector on the motherboard, allowing you to install USB devices directly with no messy cables. This stops important data storage devices from breaking off unexpectedly. The Z9PE-D8 WS with this unique design provides a convenient and safe way to install data and applications on your PC

Easy Quick Gate

Onboard user-friendly troubleshooting

Built into the Z9PE-D8 WS, the G.P. Diagnosis tool double checks the system by effortlessly and quickly providing precise info every time you switch on your PC.

Best debug tool

Server-level Compatibility

Server-level Compatibility with RAID card and Lan card
The Z9PE-D8 WS provides complete compatibility with RAID and LAN cards.Users enjoy a wider selection of devices and higher reliability. As a workstation motherboard that puts an emphasis on system integration, the Z9PE-D8 WS offers the benefit of greater confidence and convenience.

Server-level Compatibility

ASUS Exclusive Features

ASUS SSD Caching

3X faster performance at a click
SSD Caching from ASUS is easier than ever. At 3X faster, this feature boosts system performance by using an installed SSD with no capacity limitations as a cache for frequently accessed data. Harness a combination of SSD-like performance and response and hard drive capacity with just one click, no rebooting needed and instant activation for complete ease of use, and even prevent data loss with included backup functionality.

True USB 3.0 support

Experience ultra-fast data transfers at 4.8Gbps with USB 3.0 —the latest connectivity standard. Built to connect easily

with next generation components and peripherals, USB 3.0 transfers data 10X faster and is also backward compatible with USB 2.0 components.

Extra SATA 6Gb/s

The Intel® C602 chipset natively supports the next-generation SATA interface, delivering up to 6Gb/s data transfers. ASUS provides extra SATA 6Gb/s ports with enhanced scalability, faster data retrieval, and double the bandwidth of current bus systems.

Latest Transfer Technology

PCIe 3.0 Ready

The latest PCI Express bus standard delivers improved encoding for twice the performance of current PCIe 2.0. Total bandwidth for a x16 link reaches a maximum of 32GB/s, double the 16GB/s of PCIe 2.0 (in x16 mode). PCIe 3.0 provides users unprecedented data speeds, combined with the convenience and seamless transition offered by complete backward compatibility with PCIe 1.0 and PCIe 2.0 devices. It's a must-have feature for PC users aiming to improve and optimize graphics performance, as well as have the latest, most future-proof technology.

*This motherboard is ready to support PCIe 3.0 SPEC. Functions will be available when using PCIe 3.0-compliant devices. Please refer to www.asus.com for updated details.

ASUS Crystal Sound

DTS Connect

Expand Your PC Audio Experience
To get the most out of your audio entertainment across all formats and quality levels, DTS Connect combines two enabling technologies. DTS Neo:PC™ upmixes stereo sources (CDs, MP3s, WMAs, internet radio) into as many as 7.1 channels of incredible surround sound. Consumers can then connect their PC to a home theater system.DTS Interactive is capable of performing multi-channel encoding of DTS bitstreams on personal computers, and sending encoded bitstreams out of a digital audio connection (such as S/PDIF or HDMI) designed to deliver audio to an external decoder.

DTS UltraPC II

DTS UltraPC II delivers exceptional 7.1 surround through

the most popular PC audio setups - your existing stereo speakers or headphones. In addition to virtual surround, it upgrades original sound to new levels with Audio Restoration, recreating the dynamic range of audio files. Symmetry mode improves the balance of perceived loudness across different input sources and Enhance boosts audio quality through high and low frequency equalization. With these technologies, users experience better home theater audio with ease.

CPU, Chipset and Graphics features

Intel® Xeon® E5-2600 processor family for the LGA 2011 socket

The motherboard supports the latest Intel® Xeon® E5-2600 processor family with dual LGA 2011 sockets. Memory and PCI Express controllers are integrated alongside quad-channel 8-DIMM DDR3 memory and 80 PCI Express 3.0 lanes. This provides great graphics performance with superior energy efficiency.

Intel® C602 Express Chipset

The Intel® C602 Chipset is the latest single-chipset design that supports Intel® Xeon® E5-2600 processors for dual LGA 2011 sockets. It improves performance by utilizing serial point-to-point links, allowing for increased bandwidth and stability. Additionally, the C602 comes with two SATA 6Gb/s and eight SATA 3Gb/s ports for faster data retrieval, doubling the bandwidth of current bus systems.

4-Way SLI™ and Quad-GPU CrossFireX™ Support

Both SLI™ and CrossfireX™ architectures work flawlessly on the new Z9PE-D8 WS motherboard, with PCI Express slots designed to accommodate the power of up to four graphics cards. Whether for professional graphics work, heavy duty multimedia or dedicated gaming, more than ample graphics power can be applied whenever needed.

Diverse coprocessors and GPU accelerators support

The Z9PE-D8 WS supports up to four PCI-E Gen3 x16 slots for high expandability, compatible with versatile expansion cards, especially in supporting up-to-date Intel® Xeon Phi™ 3100 Coprocessor series(active fan SKU only) and NVIDIA Tesla K20C of GPU accelerators.

CPU

Intel® Socket 2011 Processors
Dual Intel® Socket 2011 for Xeon® processor E5-2600/E5-2600 v2 product family
Supports Intel® Turbo Boost Technology 2.0
* Refer to www.asus.com for CPU support list

Chipset

Intel® C602

Memory

8 x DIMM, Max. 64GB, DDR3 2133(O.C.)/2000(O.C.)/1866/1600/1333/1066 MHz ECC, Non-ECC, Un-buffered Memory *1
Quad Channel Memory Architecture
*For Registered Memory, Max. 256GB DDR3 1866/1600/1333/1066/800 MHz
* Refer to www.asus.com for the Memory QVL (Qualified Vendors Lists).

System Bus

8.0/7.2/6.4 GT/s Intel® QuickPath Interconnect

Multi-GPU Support

Supports NVIDIA® 4-Way SLI™ Technology
Supports AMD Quad-GPU CrossFireX™ Technology

Expansion Slots

4 x PCIe 3.0/2.0 x16 (dual x16 or quad x8) *2
2 x PCIe 3.0/2.0 x16 *2
1 x PCIe 3.0/2.0 x16 (x8 mode) *2

Storage

Intel® C602 chipset :
2 x SATA 6Gb/s port(s), blue
8 x SATA 3Gb/s port(s), black
Support Raid 0, 1, 5, 10
Marvell® PCIe 9230 controller :
4 x SATA 6Gb/s port(s), gray
Support Raid 0, 1, 10

LAN

Intel® 82574L, 2 x Gigabit LAN Controller(s)

Audio

Realtek® ALC898 8-Channel High Definition Audio CODEC
- Supports : Jack-detection, Multi-streaming, Front Panel Jack-retasking

Audio Feature :
- Absolute Pitch 192kHz/ 24-bit True BD Lossless Sound
- DTS Ultra PC II
- Optical S/PDIF out port(s) at back panel

USB Ports

ASMedia® USB 3.0 controller :
4 x USB port(s) (2 at back panel, , 2 at mid-board)

Workstation Feature

7 x PCIe x 16 slot(s)
Quick Gate: 2 x vertical USB 2.0 on board
ASWM Enterprise
ASMB6-iKVM Remote Management Tool

Special Features

ASUS Digital Power Design :
- Industry leading Digital 7 +1 Phase Power Design
- Industry leading Digital 2 Phase DRAM Power Design

ASUS Exclusive Features :
- Front Panel USB 3.0 Support
- ASUS SSD Caching II

ASUS Quiet Thermal Solution :
- Stylish Fanless Design Heat-pipe solution

ASUS EZ DIY :
- ASUS CrashFree BIOS 3
- ASUS EZ Flash 2
- ASUS MyLogo 2
- Multi-language BIOS

ASUS Q-Design :
- ASUS Q-Shield
- ASUS Q-Code
- ASUS Q-Slot
- ASUS Q-DIMM

Back I/O Ports

1 x PS/2 keyboard/mouse combo port(s)
2 x LAN (RJ45) port(s)
2 x USB 3.0
6 x USB 2.0
1 x Optical S/PDIF out
6 x Audio jack(s)

Internal I/O Ports

1 x USB 3.0 connector(s) support(s) additional 0 USB 3.0 port(s)
2 x USB 2.0 connector(s) support(s) additional 4 USB 2.0 port(s)
2 x USB 2.0/1.1 vertical port(s)
2 x COM port(s) connector(s)
2 x IEEE 1394a connector(s)
2 x CPU Fan connector(s) (2 x 4 -pin)
6 x Chassis Fan connector(s)
1 x S/PDIF out header(s)
1 x 24-pin EATX Power connector(s)
2 x 8-pin ATX 12V Power connector(s)
1 x 4-pin EZ_PLUG Power connector(s)
1 x ASMB6-iKVM connector(s)
1 x VGA connector(s)
1 x Front panel audio connector(s) (AAFP)
1 x AUX panel header(s)
1 x SMBus header(s)
1 x System panel(s)
1 x Power-on button(s)
1 x Reset button(s)
1 x Clear CMOS jumper(s)

Accessories

User's manual
ASUS Q-Shield
2 x COM port cable(s)
8 x SATA 3Gb/s cable(s)
6 x SATA 6Gb/s cable(s)
1 x 3-Way SLI bridge(s)
1 x 4-Way SLI bridge(s)
1 x SLI bridge(s)
0 x 1-port 1394a module(s)

BIOS

64 Mb Flash ROM, UEFI BIOS, PnP, DMI2.0, WfM2.0, SM BIOS 2.6, ACPI 2.0a, Multi-language BIOS, ASUS EZ Flash 2, ASUS CrashFree BIOS 3

Manageability

WfM 2.0, DMI 2.0, WOL by PME, WOR by PME, PXE

Support Disc

Drivers
ASUS Utilities
ASUS Update

Form Factor

EEB Form Factor
12 inch x 13 inch (30.5 cm x 33 cm)

Note

*1: DDR3 1866 MHz is only supported with Intel® Xeon® processor E5-2600 v2 product family
*2: This motherboard is ready to support PCIe 3.0 SPEC. Functions will be available when using PCIe 3.0-compliant devices. Please refer to www.asus.com for updated details.